I. Oral Health

Oral health is essential to the general health and well-being of all Wisconsin residents and can be achieved by all. However, not all residents are achieving the same degree of oral health. In spite of safe and effective means of maintaining oral health that have benefited the majority of residents over the past half century, many still experience needless pain and suffering, with complications that negatively affect their overall health, well-being, and financial and social standing. What amounts to "a silent epidemic" of oral diseases is affecting our most vulnerable citizens—poor children, the elderly, and many members of racial/ethnic minority groups.

In the United States, racial/ethnic minority populations generally have poorer oral health in comparison to the majority white population.[1] In Wisconsin, oral health data for state and local populations is scarce. However, low-income and racial/ethnic minority children and those with special healthcare needs are at greatest risk of inadequate access and poor oral health. More information is needed to improve oral health and eliminate health disparities.

Make Your Smile Count Survey

The following information on racial/ethnic oral health disparities in Wisconsin was taken from the Department of Health and Family Services *Make Your Smile Count Survey* of 3,307 third-grade students attending Wisconsin public schools during the 2001–2002 academic year. Information on race was available for 2,958 (90%) of the children surveyed, while information on ethnicity was available for 2,520 (76%) of the children surveyed. (See Appendix II for a description of the *Make Your Smile Count Survey*.)

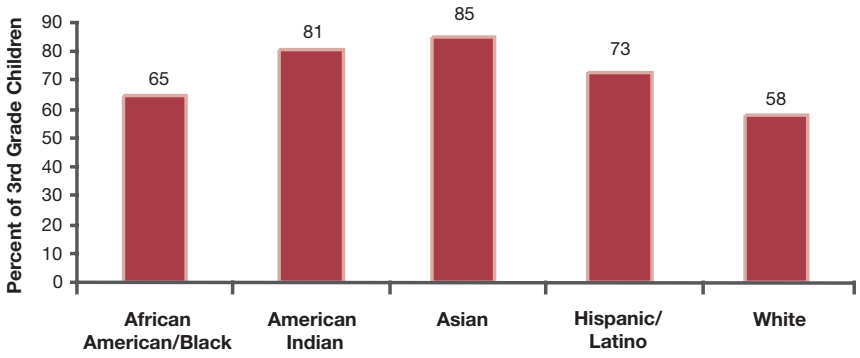
Socioeconomic Disparities

- The *Make Your Smile Count Survey* of third-grade children confirmed that oral health status is highly associated with socioeconomic status. Those who attended low-income schools had significantly more untreated decay (45%) compared to children in middle income (32%) and higher income schools (17%). In addition, children attending lower income schools were less likely to have dental sealants (34%), compared to children in both middle income (50%) and higher income schools (57%).

Dental Caries

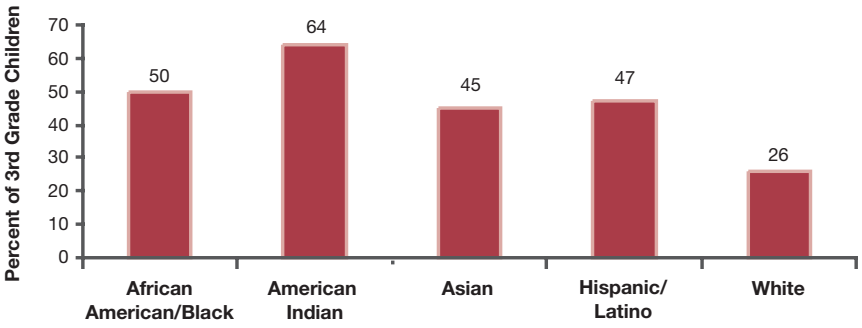
- Compared to white children, higher proportions of racial/ethnic minority children had a history of decay (treated or untreated decay in at least one primary or permanent molar) (Figure 65).
- Higher proportions of racial/ethnic minority children also had untreated decay. Of the children screened, 50% of African Americans had untreated decay compared to 64% of American Indians, 45% of Asians, 47% of Hispanic/Latinos, and 26% of white children (Figure 66).

Figure 65: Untreated and treated caries (cavities) history in third graders by race/ethnicity, Wisconsin, 2001–2002



Source: *Make Your Smile Count Survey*, 2001–2002, Wisconsin Department of Health and Family Services.

Figure 66: Untreated decay in third graders by race/ethnicity, Wisconsin, 2001–2002

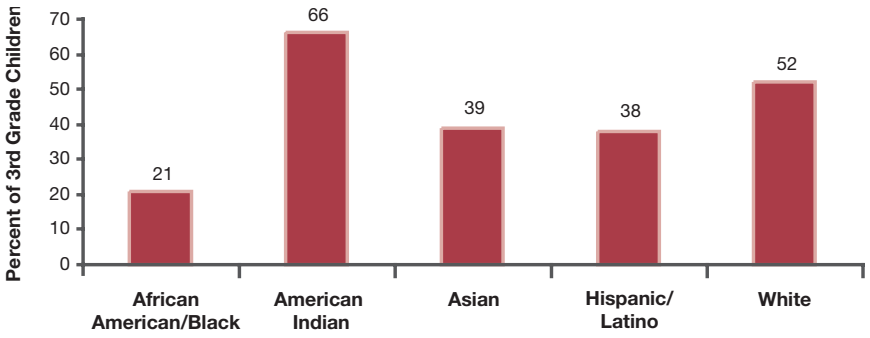


Source: *Make Your Smile Count Survey*, 2001–2002, Wisconsin Department of Health and Family Services.

Dental Care

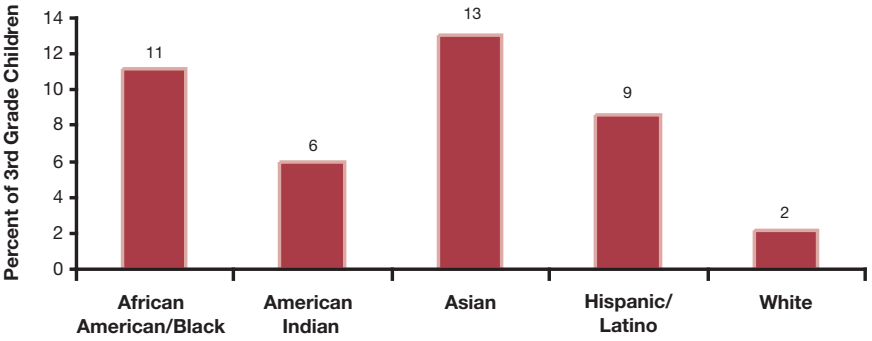
- White and American Indian children were more likely to have dental sealants compared to both African American and Asian children. Of the children screened, 21% of African Americans had sealants, compared with 66% American Indians, 39% Asians, 38% Hispanic/Latinos, and 52% of white children (Figure 67).
- Criteria for urgent dental care include signs or symptoms of pain, infection, swelling, or soft tissue ulceration of more than a two-week duration. More than 11% of African American children, 13% of Asian children, 9% of Hispanic/Latino children, and 2% of white children were in need of urgent dental care (Figure 68).

Figure 67: Dental sealants in third graders by race/ethnicity, Wisconsin, 2001–2002



Source: *Make Your Smile Count Survey*, 2001–2002, Wisconsin Department of Health and Family Services.

Figure 68: Need of urgent dental care in third graders by race/ethnicity, Wisconsin, 2001–2002



Source: *Make Your Smile Count Survey*, 2001–2002, Wisconsin Department of Health and Family Services.

Note: Criteria for urgent dental care include signs or symptoms of pain, infection, swelling, or soft tissue ulceration of more than a two-week duration.

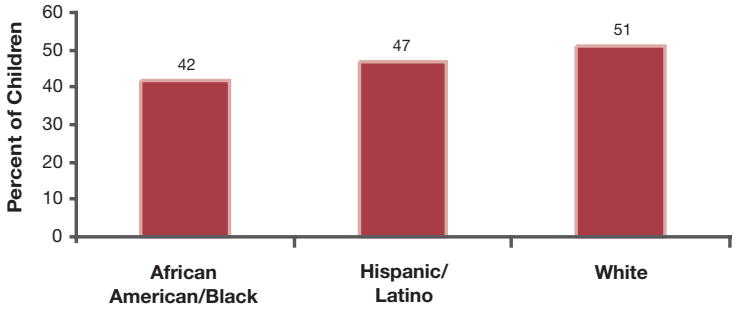
Head Start Survey

The following information on racial and ethnic oral health disparities in Wisconsin was taken from the 2003 Department of Health and Family Services *Healthy Smiles for a Head Start Survey.*

This statewide survey included information from 456 children enrolled in the Wisconsin Head Start program who participated in the survey and were screened by a dental hygienist. The number of children screened in each region was proportional to the number of children in that region enrolled in the Head Start program. The average age of the children screened was 4.4 years; 32% were white, 20% were African American, 32% were Hispanic, and just under 8% were Asian (not a large enough sample for further analysis).

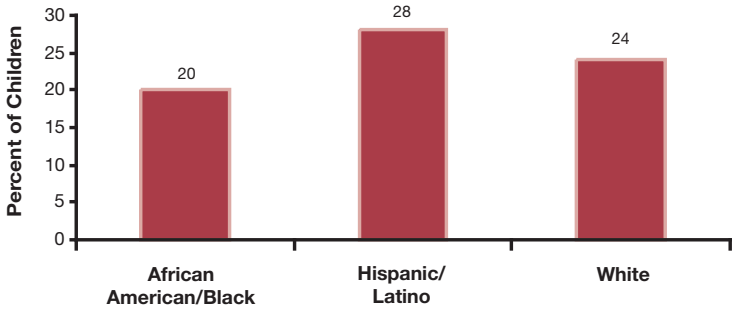
- The highest proportion of children with a history of untreated and treated cavities were white (Figure 69).
- The highest proportion of children with untreated decay were Hispanics/Latinos (Figure 70).
- Hispanic Head Start children were more likely to require early or urgent dental treatment (Figure 71).

Figure 69: Caries (cavities) history in Head Start children by race/ethnicity, Wisconsin, 2003



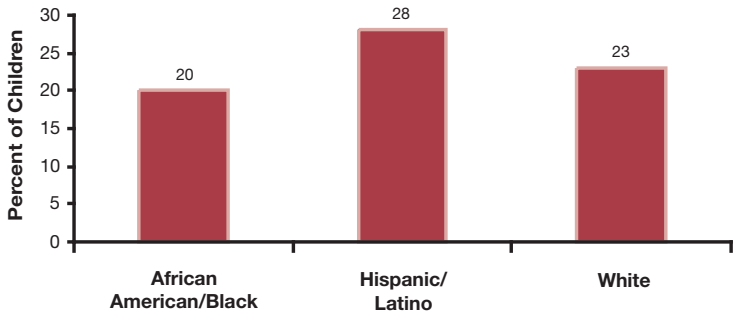
Source: *Healthy Smiles for a Head Start Survey*, 2003, Wisconsin Department of Health and Family Services.

Figure 70: Untreated decay in Head Start children by race/ethnicity, Wisconsin, 2003



Source: *Healthy Smiles for a Head Start Survey*, 2003, Wisconsin Department of Health and Family Services.

Figure 71: Need for urgent dental care in Head Start children by race/ethnicity, Wisconsin, 2003



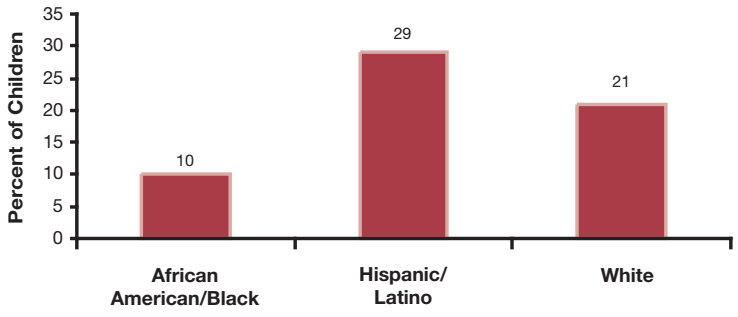
Source: *Healthy Smiles for a Head Start Survey*, 2003, Wisconsin Department of Health and Family Services.

Early Childhood Caries

Early Childhood Caries (cavities), also called ECC, is a transmissible bacterial infection that causes an aggressive form of tooth decay in infants and toddlers with distinct characteristics and risk factors. The condition can be debilitating for children by affecting their ability to obtain nutrition and affecting their energy level and their ability to concentrate in the learning process. Emerging research has also provided some support for the idea that the risk of preterm birth and low birthweight can be reduced through addressing women's oral health needs during the prenatal period.[2]

- Compared to white and Hispanic/Latino children, African American children enrolled in Head Start had a lower prevalence of early childhood caries.

Figure 72: Early Childhood Caries* in Head Start children by race/ethnicity, Wisconsin, 2003

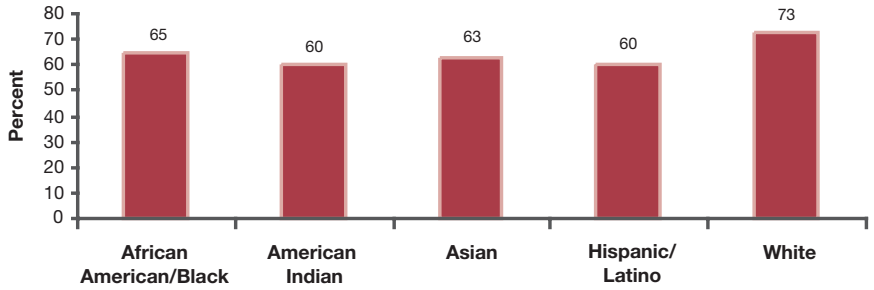


Source: *Healthy Smiles for a Head Start Survey*, 2003, Wisconsin Department of Health and Family Services.
Note: *Early childhood caries refers to any child age 3 or under with at least one of six upper front teeth either decayed, filled, or missing due to cavities.

Dental Care Visits

Dental care utilization statistics are traditionally based on an individual's reporting at least one dental visit in the past year. Self-reported data from the 1996–2000 Wisconsin Family Health Surveys indicate that the percentage of individuals in Wisconsin who visited the dentist or a dental clinic within the past year was 65% for African Americans, 60% for American Indians, 63% for Asians, 60% for Hispanics/Latinos, and 73% for whites.

Figure 73: Dental visits by race/ethnicity, Wisconsin, 1996–2000



Source: Wisconsin Family Health Survey, 1996–2000, Wisconsin Department of Health and Family Services, Bureau of Health Information. Graph prepared by the Division of Public Health.

Oral Cancer

The occurrence of oral and pharyngeal cancers varies by race and ethnicity. Men's risk of being diagnosed with oral or pharyngeal cancer is twice that of women, and African American men suffer disproportionately from this disease. Whereas oral cancer is the sixth leading cancer in U.S. men and the fourteenth most common cancer in U.S. women, it is the fourth leading cancer in African American men.[1]

Oral and pharyngeal cancers refer to a diverse group of tumors affecting the oral cavity and pharynx. Usually included are cancers of the lips, tongue, pharynx, and oral cavity. More than 30,000 new cases of oral and pharyngeal cancers are diagnosed yearly and more than 8,000 people die annually from this cancer. The overall survival rate (52%) has not changed in the past 4 decades. Primary risk factors in the United States are smoking and use of other tobacco products. Tobacco and alcohol are independent risk factors and in combination place individuals at higher risk. Other risk factors include insufficient fruits and vegetables in the diet and failure to use ultraviolet protection, and infection with certain viruses.

According to *2000 Oral Health in America: A Report of the Surgeon General*, the incidence rates for oral and pharyngeal cancers are higher for African American individuals than for whites: 12.5 cases versus 10.0, respectively, per 100,000 people each year. In the United States, Asians and Pacific Islanders (7.9 per 100,000) and both American Indians and Alaska Natives (6.4 per 100,000) have lower incidence rates than whites and African Americans.

Medical and dental professionals often detect cancers in early stages for prompt diagnosis and treatment. In addition, public education regarding oral and pharyngeal risk factors may assist people in modifying lifestyle behaviors and lowering their risk of oral cancer.

- Data from the 1996–2000 reported cancer cases and deaths in Wisconsin indicate that an average of 21 African American males per year were diagnosed with invasive oral and pharyngeal cancer (4.5% of all cancers diagnosed in African American males). In comparison, an average of 376 cases of oral and pharyngeal cancer per year were diagnosed in white males (3% of all cancers diagnosed in white males).

- During 1996–2000 in Wisconsin, an average of 6 African American males per year died of oral and pharyngeal cancer (3% of all cancer deaths in African American males). In comparison, about 89 white males died per year from oral and pharyngeal cancer (1.7% of all cancer deaths in white males).

Notes

1. US Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000.

2. Allston A. *Improving Women's Health and Perinatal Outcomes: The Impact of Oral Diseases*. Baltimore, MD: Women's and Children's Health Policy Center, John Hopkins University; 2002.